

1           We claim:

2           1.       A hardware database for implementing known database protocols  
3 comprising:  
4           a database stored in a memory;  
5           a microprocessor operable to receive statements from a user, the statements in  
6 a known database protocol format, operable to manipulate data in the database; and  
7           a data flow engine in communication with the microprocessor and the  
8 database and operable to receive the statements from the microprocessor and to  
9 process the statements against the database.

1           2.       The hardware database of Claim 1 wherein the dataflow engine further  
2 comprises:  
3           a parser receiving the standardized database statements and converting the  
4 standardized database statements into executable instructions and data objects;  
5           an execution tree processor connected to the parse and receiving the  
6 executable instructions from the parser, the execution tree processor creating  
7 execution trees from the executable instructions and schedules the execution trees for  
8 execution; and  
9           a graph engine connected to the execution tree processor, the graph engine  
10 operable to manipulate the database as required by the executable instructions.

1           3.       The hardware database of Claim 1 wherein the information in the  
2 database is represented in memory in the form of graphs.

1           4.       The hardware database of Claim 1 wherein the hardware  
2 database is connected directly to a network using a network connection, and the  
3 microprocessor is operable to receive the statements from the users over the network  
4 connection.

1           5.     The hardware database of Claim 1 wherein the hardware database is  
2     connected to application servers, the applications servers providing the statement to  
3     the hardware database.

1           6.     The hardware database of Claim 1 wherein the statements are  
2     Structured Query Language statements.

1           7.     The hardware database of Claim 1 wherein the hardware  
2     database further includes a host microprocessor connected to the microprocessor.

1           8.     The hardware database of Claim 1 wherein the manipulation of the  
2     database by the statements includes reading information from the database, writing  
3     information into the database and altering information in the database.

1           9.     The hardware database management system of Claim 1 wherein  
2     the data flow engine may call routines from the microprocessor.